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EXAMINER

SERRAO, RANODHI N

ART UNIT

PAPER NUMBER

2141

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,039	PARDIKAR ET AL.	
	Examiner	Art Unit	
	Ranodhi Serrao	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 17 January 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-41 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-41 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 17 January 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

Specification

The disclosure is objected to because of the following informalities: The information in the front page of the specification does not belong in the specification. The examiner recommends removing it. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11, 15-18, 21-23, 25-27, 32-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Serlet et al. (6,842,770).

As per claim 1, Serlet et al. teaches in a computer network, a method comprising: receiving an I/O request initiated from an application program directed to a file on a WebDAV server (column 7, lines 35-56); communicating with the WebDAV server to determine whether the request can be handled (column 6, lines 25-64), and if so, downloading the file to a local cache (column 6, line 65-column 7, line 34) and returning a file handle corresponding to the file in the local cache to the application program; providing access to the file in the local cache via the file handle; and receiving a request

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to close the file via the file handle (column 11, lines 24-49), and when received, uploading the file from the local cache to the WebDAV server (column 12, lines 35-44).

As per claim 2, Serlet et al. teaches receiving an I/O request initiated from an application program comprises, receiving a Universal Resource Identifier corresponding to a file on the WebDAV server (column 9, lines 38-53).

As per claim 3, Serlet et al. teaches wherein receiving an I/O request initiated from an application program comprises, receiving a filename and an identifier previously mapped to a share on the WebDAV server (column 9, lines 54-63).

As per claim 4, Serlet et al. teaches communicating with the WebDAV server to determine whether the request can be handled, comprises, issuing an HTTP OPTIONS request, and evaluating a response therefrom (column 6, line 65-column 7, line 34: wherein the request in an options request since it can be a command to write file, rename file, rename directory, etc.).

As per claim 5, Serlet et al. teaches communicating with the WebDAV server to determine whether the request can be handled, comprises, issuing a WebDAV PROPFIND request directed to share on the WebDAV server, and evaluating a response therefrom (column 11, lines 24-49).

As per claim 6, Serlet et al. teaches the WebDAV server returns property information in response to the WebDAV PROPFIND request directed to the share and further comprising, maintaining the property information in a local data structure (column 8, line 66-column 9, line 22; column 11, lines 50-65).

As per claim 7, Serlet et al. teaches communicating with the WebDAV server to determine whether the request can be handled, comprises, issuing a WebDAV PROPFIND request directed to on the WeDDAV server, and evaluating a response therefrom (column 11, lines 24-49).

As per claim 8, Serlet et al. teaches the WebDAV server returns property information in response to the WebDAV PROPFIND request directed to the file, and further comprising, maintaining the property information in a local data structure (column 8, line 66-column 9, line 22; column 11, lines 50-65).

As per claim 9, Serlet et al. teaches wherein communicating with the WebDAV server to determine whether the request can be handled comprises: issuing an HTTP OPTIONS request, evaluating a corresponding response, and determining that the server a WebDAV server (column 6, line 65-column 7, line 34: wherein the request in an options request since it can be a command to write file, rename file, rename directory, etc.); issuing a WebDAV PROPFIND request directed to a share on the WebDAV server, evaluating a corresponding response, and determining that the share exists on the WebDAV server, the response including share property information; and issuing a WebDAV PROPFIND request directed to the file, evaluating a corresponding response, and determining that the file exists, the response including file property information (column 11, lines 24-49).

As per claim 10, Serlet et al. teaches maintaining the share property information and the file property information in at least one local data structure (column 8, line 66-column 9, line 22; column 11, lines 50-65).

As per claim 11, Serlet et al. teaches communicating with the WebDAV server indicates that the request can be handled, and further comprising, communicating with at least one other local component to indicate that at least this request can be handled (column 5, lines 20-52).

As per claim 15, Serlet et al. teaches a computer-readable medium having computer-executable instructions for performing the method claim 1 (column 2, line 51-column 3, line 19).

As per claim 16, Serlet et al. teaches receiving at a local programming interface layer an application request that relates to a Uniform Resource Identifier; providing information corresponding to the request to a local WebDAV-related mechanism (column 4, line 54-column 5, line 2; column 5, lines 20-52); and determining at the WebDAV-related mechanism whether a server identified via the application request comprises WebDAV-enabled server, and if so, handling the request (column 6, lines 25-64).

As per claim 17, Serlet et al. teaches the application request includes the Universal Resource Identifier (column 5, lines 20-52).

As per claim 18, Serlet et al. teaches the application request includes an identifier that has been previously mapped to at least part of the Universal Resource Identifier (column 9, lines 54-63).

As per claim 21, Serlet et al. teaches the application request comprises an I/O request directed to a file, and wherein handling the request comprises creating a local file corresponding to the I/O request (column 7, lines 35-56).

As per claim 22, Serlet et al. teaches downloading at least some file data from the WebDAV server to the local file (column 4, lines 27-53: wherein accessing information serves as downloading file data).

As per claim 23, Serlet et al. teaches returning a file handle corresponding to the local file to the application (column 11, lines 24-49).

As per claim 25, Serlet et al. teaches determining at the WebDAV-related mechanism whether the server identified via the application request comprises a WebDAV-enabled server includes, issuing an HTTP OPTIONS request to the server, and evaluating a corresponding response (column 6, line 65-column 7, line 34: wherein the request in an options request since it can be a command to write file, rename file, rename directory, etc.).

As per claim 26, Serlet et al. teaches the application program's request indicates a share on the WebDAV server and further comprising, issuing a WebDAV PROPFIND request directed to the share on the WebDAV server (column 11, lines 24-49).

As per claim 27 Serlet et al. teaches the application program's request further indicates a file on the share on the WebDAV server, and further comprising, issuing a WebDAV PROPFIND request directed to the file (column 11, lines 24-49).

As per claim 32 Serlet et al. teaches a computer-readable medium having computer-executable instructions for performing the method claim 16 (column 2, line 51-column 3, line 19).

As per claim 33 Serlet et al. teaches in a computer network, a system comprising, an application program that issues WebDAV-related requests including at

least one request having an identifier corresponding to a WebDAV server (column 6, lines 25-64); a WebDAV-request handling mechanism, the WebDAv-request handling mechanism configured to communicate with a network server to obtain capability information thereof (column 11, lines 24-49), and to evaluate the capability information to determine whether the network server comprises a WebDAV-enabled server (column 6, lines 25-64); and when the capability information indicates that the network server is WebDAV-enabled, the WebDAV-request handling mechanism locally handling each request corresponding to the WebDAV server that can be handled locally (column 5, lines 20-52), and communicating with the WebDAV server to handle requests that cannot be handled locally (column 6, lines 25-52).

As per claim 34 Serlet et al. teaches the identifier corresponding to a WebDAV server issued by the application comprises a Universal Resource Identifier (column 5, lines 20-52).

As per claim 35 Serlet et al. teaches the identifier corresponding to a WebDAV server issued by the application comprises an identifier previously mapped to a share on the WebDAV server (column 9, lines 54-63).

As per claim 36 Serlet et al. teaches the WebDAv-request handling mechanism receives requests from the application via an application programming interface (column 4, line 54-column 5, line 2).

As per claim 37 Serlet et al. teaches the application program issues I/O requests directed to a WebDAV file, and wherein the WebDAV-request handling mechanism receives the I/O request from a manager component (column 7, lines 35-56).

As per claim 38 Serlet et al. teaches the application program issues I/O requests directed to a WebDAV file, and wherein the WebDAV-request handling mechanism (column 7, lines 35-56): creates a local representation of the file (column 6, line 65-column 7, line 34); determines whether the file exists on the WebDAV server, and if so, downloads at least some of the data from the WebDAV server file to the local representation of the file (column 4, lines 27-53: wherein accessing information serves as downloading file data); returns a file handle corresponding to the local representation of the file to the application program (column 11, lines 24-49); receives I/O read and write requests associated with the file handle and handles the I/O read and write requests via the local representation of the file (column 11, lines 24-49; column 12, lines 35-44); and receives an I/O close request associated with the file handle, and handles the I/O close request by closing the local representation of the file and uploading at least part of the local representation of the file to the WebDAV server (column 11, lines 24-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) as applied to claim 1 above, and further in view of Prust (6,714,968).

As per claim 12, Serlet et al. teaches the mentioned limitations of claim 1 above, but fails to teach determining that the file is encrypted on the WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted. Prust teaches determining that the file is encrypted on the WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add determining that the file is encrypted on the WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted in order to allocate a corresponding storage area for each user and store the respective user information in metadata database.

As per claim 13, Serlet et al. teaches the mentioned limitations of claims 1 and 12 above, but fails to teach communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file. Prust teaches communicating with the file system to open the image of the file such that the file

system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file in order to allow the user to access the respective storage area via the many access interfaces.

As per claim 14, Serlet et al. teaches the mentioned limitations of claims 1 and 12 above, but fails to teach uploading the file from the local cache to the WebDAV server comprises, communicating with the file system to read data from the local image of the file such that the file will be uploaded as the encrypted image thereof. Prust teaches uploading the file from the local cache to the WebDAV server comprises, communicating with the file system to read data from the local image of the file such that the file will be uploaded as the encrypted image thereof (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add uploading the file from the local cache to the WebDAV server comprises, communicating with the file system to read data from the local image of the file such that the file will be uploaded as the encrypted image thereof in order to prevent unauthorized users from accessing information about other users.

Claims 28, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) as applied to claim 16 above, and further in view of Prust (6,714,968).

As per claim 28, Serlet et al. teaches the mentioned limitations of claim 16 above, but fails to teach the application request comprises an I/O request directed to an encrypted file, and further comprising, automatically decrypting the data locally when downloading the encrypted file from the WebDAV server and automatically encrypting the data locally when uploading the encrypted file to the WebDAV server. Prust teaches the application request comprises an I/O request directed to an encrypted file, and further comprising, automatically decrypting the data locally when downloading the encrypted file from the WebDAV server and automatically encrypting the data locally when uploading the encrypted file to the WebDAV server. (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add the application request comprises an I/O request directed to an encrypted file, and further comprising, automatically decrypting the data locally when downloading the encrypted file from the WebDAV server and automatically encrypting the data locally when uploading the encrypted file to the WebDAV server in order to allocate a corresponding storage area for each user and store the respective user information in metadata database.

As per claim 29, Serlet et al. teaches the mentioned limitations of claim 16 above, but fails to teach the application request comprises an I/O request directed to a

file that is encrypted on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server. Prust teaches the application request comprises an I/O request directed to a file that is encrypted on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add the application request comprises an I/O request directed to a file that is encrypted on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server in order to allow the user to access the respective storage area via the many access interfaces.

As per claim 30, Serlet et al. teaches the mentioned limitations of claims 16 and 29 above, but fails to teach communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests. Prust teaches

communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests in order to prevent unauthorized users from accessing information about other users.

Claims 31, 39, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) and Prust (6,714,968).

As per claim 31, Serlet et al. and Prust teach the limitations mentioned above in claims 16, 29, and 30 but Prust fails to teach detecting a request to close the local file, closing the local file, communicating with the file system to open the local file such that the file will not be decrypted when read and uploading the file to the WebDAV server as an encrypted file. Serlet et al. however teaches detecting a request to close the local file, closing the local file, communicating with the file system to open the local file (column 11, lines 24-49); such that the file will not be decrypted when read (column 12, lines 35-44); and uploading the file to the WebDAV server as an encrypted file (column 5, line 60-column 6, line 14: wherein authenticated access functions as being encrypted). It would have been obvious to one having ordinary skill in the art at the time of the invention to add detecting a request to close the local file, closing the local file,

communicating with the file system to open the local file such that the file will not be decrypted when read and uploading the file to the WebDAV server as an encrypted file in order to allow only the authorized user to have access to his/her data on the WebDAV server.

As per claim 39, Serlet et al. teaches the limitations mentioned above in claims 33 and 38. Serlet et al. also teaches requesting the file system to create a local file that is opened such that transparent encryption and decryption are not enabled therefor (column 5, line 60-column 6, line 14: wherein authenticated access may not be enabled by the user); requesting the file system to close the local file (column 11, lines 24-49). But Serlet et al. fails to teach the WebDAV file is encrypted, and wherein WebDAV-request handling mechanism creates the local representation of the file by downloading at least some of the encrypted file data by requesting the file system to write to the local file without translation thereof. Prust however teaches the WebDAV file is encrypted, and wherein WebDAV-request handling mechanism creates the local representation of the file (column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written); downloading at least some of the encrypted file data by requesting the file system to write to the local file without translation thereof (column 7, lines 7-34). It would have been obvious to one having ordinary skill in the art at the time of the invention to add the WebDAV file is encrypted, and wherein WebDAV-request handling mechanism creates the local representation of the file by downloading at least some of the encrypted file data by requesting the file system to write to the local file

without translation thereof in order to allow an user to access virtual storage area using a conventional electronic mail software application.

As per claim 40, Serlet et al. and Prust teach the limitations mentioned above in claims 33, 38, and 39. Serlet et al. also teaches the WebDAV-request handling mechanism handles I/O read and write requests from the application by requesting the file system to reopen the local file (column 11, lines 24-49). But Serlet et al. fails to teach reads therefrom are decrypted and writes thereto are encrypted. Prust however teaches reads therefrom are decrypted and writes thereto are encrypted (column 7, lines 39-55). It would have been obvious to one having ordinary skill in the art at the time of the invention to add reads therefrom are decrypted and writes thereto are encrypted in order to allocate a corresponding storage area for each user and store the respective user information in metadata database.

As per claim 41, Serlet et al. and Prust teach the limitations mentioned above in claims 33, 38, 39, and 40. But Prust fails to teach when the WebDAV-request handling mechanism handles the I/O close request, and before uploading the file, the WebDAV-request handling mechanism closes the local representation of the file, and reopens the local file by requesting the file system to open the file such that reads therefrom are not decrypted. Serlet et al. however teaches when the WebDAV-request handling mechanism handles the I/O close request, and before uploading the file, the WebDAV-request handling mechanism closes the local representation of the file (column 11, lines 24-49), and reopens the local file by requesting the file system to open the file such that reads therefrom are not decrypted (column 5, line 60-column 6, line 14: wherein

authenticated access function as being encrypted). It would have been obvious to one having ordinary skill in the art at the time of the invention to add when the WebDAV-request handling mechanism handles the I/O close request, and before uploading the file, the WebDAV-request handling mechanism closes the local representation of the file, and reopens the local file by requesting the file system to open the file such that reads therefrom are not decrypted in order for authorized users to access their data on the WebDAV server without needing to input authentication information for every transmission.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) as applied to claim 16 above, and further in view of Andreoli et al. (6,732,361).

As per claim 19, Serlet et al. teaches the mentioned limitations of claim 16 above, but fails to teach providing information corresponding to the request to a local WebDAV-related mechanism comprises polling a set of at least one redirector. Andreoli et al. teaches providing information corresponding to the request to a local WebDAV-related mechanism comprises polling a set of at least one redirector (column 10, lines 32-48). It would have been obvious to one having ordinary skill in the art at the time of the invention to add providing information corresponding to the request to a local WebDAV-related mechanism comprises polling a set of at least one redirector in order to increase efficiency of feedback provided by retroaction routine.

As per claim 20, Serlet et al. teaches the mentioned limitations of claim 16 above, but fails to teach providing information corresponding to the request to a local WebDAV-related mechanism comprises polling a set of at least one network provider. Andreoli et al. teaches providing information corresponding to the request to a local WebDAV-related mechanism comprises polling a set of at least one network provider (column 12, lines 50-58). It would have been obvious to one having ordinary skill in the art at the time of the invention to add providing information corresponding to the request to a local WebDAV-related mechanism comprises polling a set of at least one network provider because this technique can be used to combine component software services, each of which is individually capable of generating choices for its service invocations and of dealing with conflicts in its service execution.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) as applied to claim 16 above, and further in view of Deen et al. (6,629,127). Serlet et al. teaches the mentioned limitations of claim 16 above, but fails to teach a networking request to browse a network share on the WebDAV server, and wherein handling the request includes enumerating information of the network share. Deen et al. teaches a networking request to browse a network share on the WebDAV server, and wherein handling the request includes enumerating information of the network share (column 16, line 48-column 17, line 15). It would have been obvious to one having ordinary skill in the art at the time of the invention to add a networking request to browse a network share on the WebDAV server, and wherein handling the

request includes enumerating information of the network share in order to carefully track the structure of the namespace and not the physical layout of the file system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nadon et al. (6,760,886) teaches an ensuring referential integrity when using webDAV for distributed development of a complex software application. Chan et al. (2002/0168616) teaches an interactive tutorial. Hopmann et al. (6,578,069) teaches a method, data structure, and computer program product for identifying a network resource. French (6,654,794) teaches a method, data processing system and program product that provide an internet-compatible network file system driver.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-5:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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SUPERVISORY PATENT EXAMINER